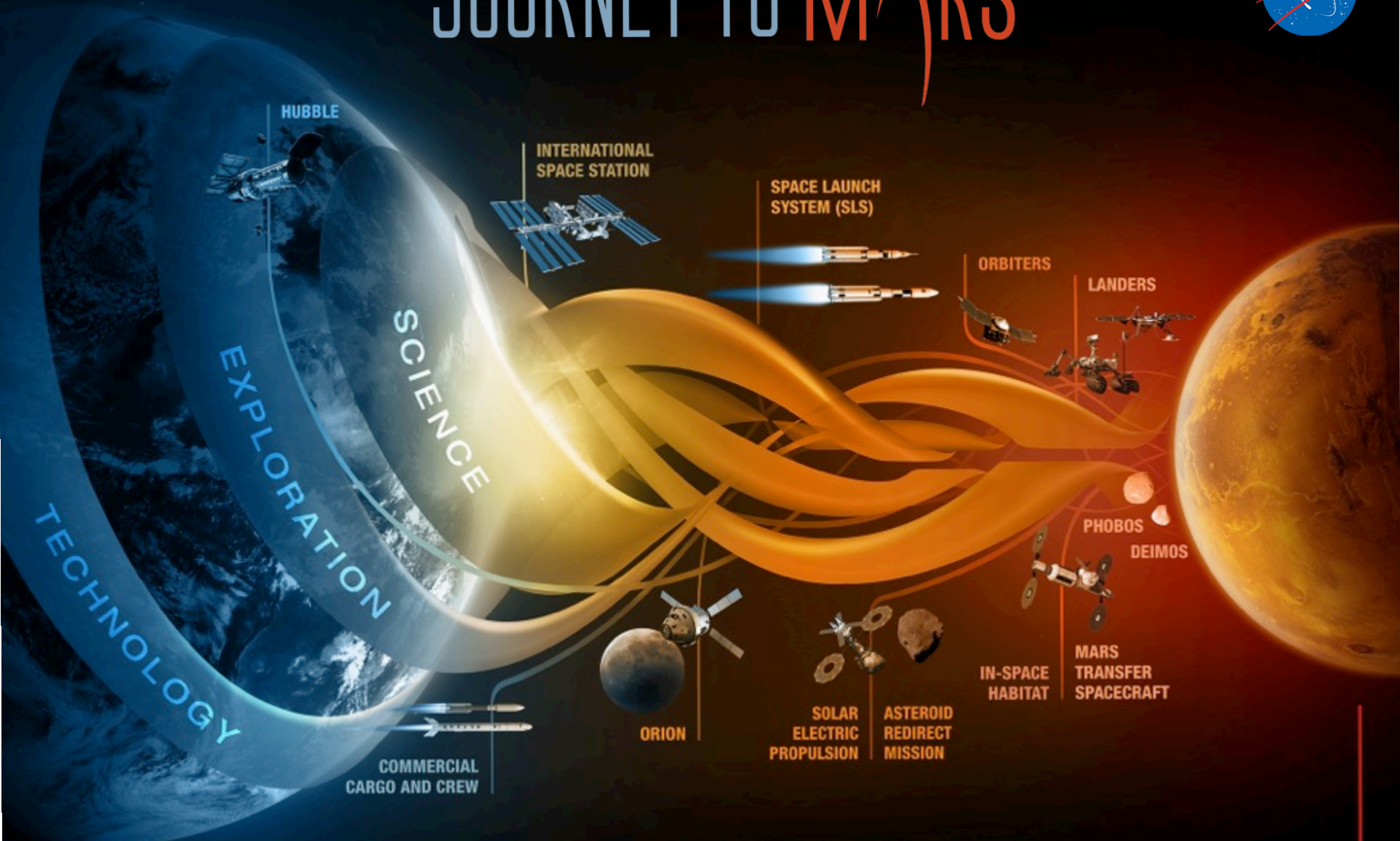




Small Business Innovation Research Small Business Technology Transfer

Joseph Grant
NASA SBIR/STTR Deputy Program Executive
January 10, 2017

JOURNEY TO MARS



MISSIONS: 6-12 MONTHS
RETURN: HOURS

EARTH RELIANT

MISSIONS: 1 TO 12 MONTHS
RETURN: DAYS

PROVING GROUND

MISSIONS: 2 TO 3 YEARS
RETURN: MONTHS

EARTH INDEPENDENT

Mission of the SBIR and STTR Programs



To support scientific excellence and technological innovation through the investment of Federal research funds in critical American priorities to build a strong national economy... one small business at a time



The SBIR & STTR Programs

Small Business Innovation Research (SBIR)

- A set-aside program for small business to engage in Federal R&D – with potential for commercialization
- 3.0% of Federal agencies Extramural R&D budgets greater than \$100M per year (FY 2015 ~ \$2.9) . Growing to 3.2% by 2017.

Small Business Technology Transfer (STTR)

- A companion set-aside program to facilitate cooperative R&D between small business concerns and U.S. research institutions – with potential for commercialization.
- 0.45% of the extramural research budget (>\$250 million) for all agencies with a budget greater than \$1B per year

Eligibility Requirements



Small Business Innovation Research (SBIR)

- 1 Organized for-profit U.S. business
- 2 At least 51% U.S. owned by individuals and independently operated
- 3 500 or fewer employees
- 4 PI's primary employment with small business during project
- 5 Intellectual Property Agreement

Small Business Technology Transfer (STTR)

- 1 Formal Cooperative R&D Effort with a U.S. Research Institution
- 2 Minimum 40% by small business, 30% by U.S. Research Institution
- 3 Small business is Prime, PI can be from SBC or Research Institution
- 4 Other SBIR Requirements Apply

11 Participating Federal Agencies



SBIR + STTR Programs



Department of
Defense (DoD)



Department of
Health and Human
Services (HHS)



Department of
Energy (DoE)



National Aeronautics
and Space
Administration (NASA)



National Science
Foundation (NSF)

SBIR Program only:



Department of
Agriculture
(USDA)



Department of
Education (DoEd)



Department of
Transportation (DoT)



Environmental
Protection
Agency (EPA)

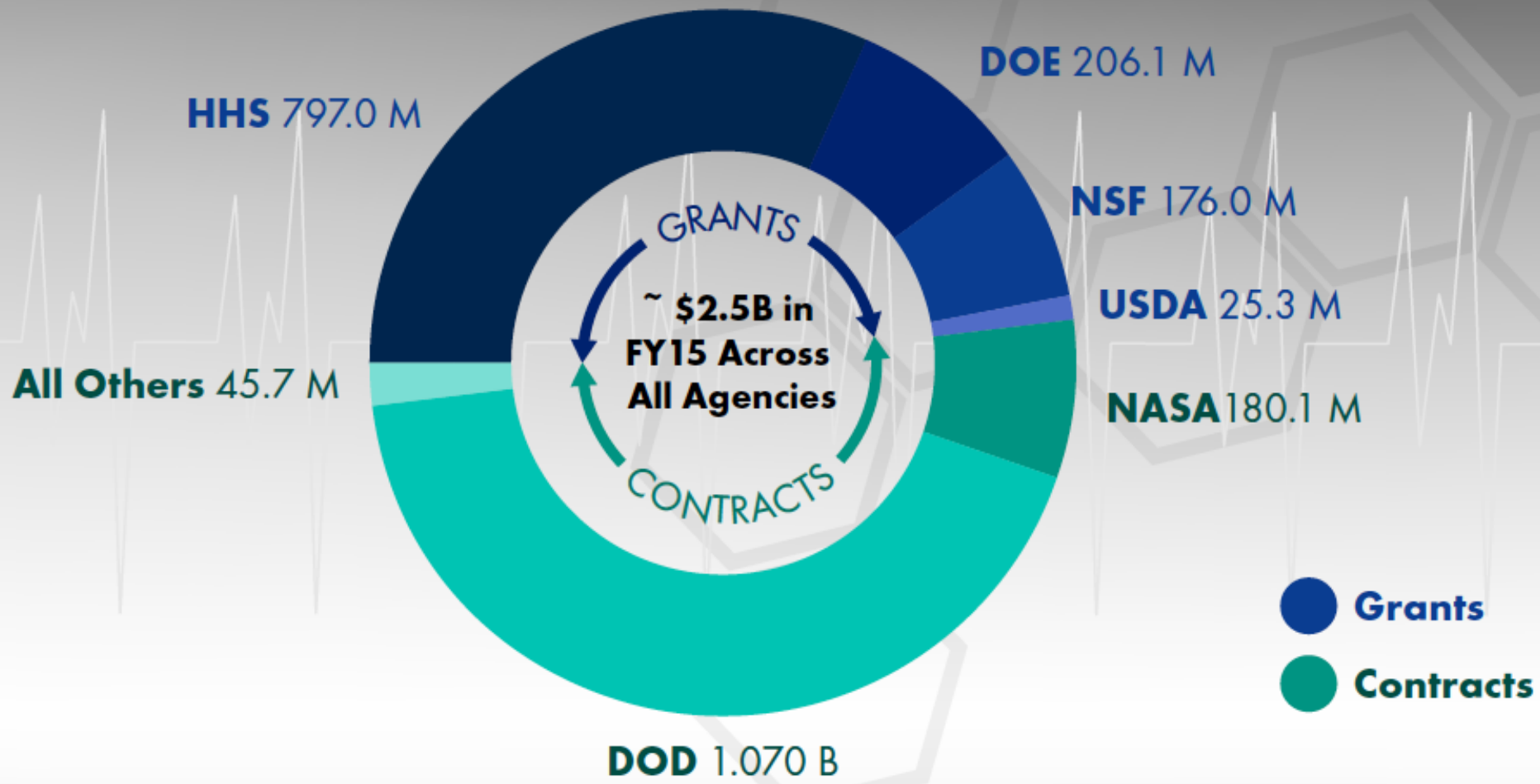


Department of
Homeland Security
(DHS)



Department of
Commerce
(DoC)

11 Participating Federal Agencies



Agency SBIR Differences



Contracting Agencies

- Agency establishes plans, protocols, requirements
- Highly focused topics
- Procurement capability
- More fiscal requirements
- Contracting agencies
- Typically utilize agency personnel for review

Granting Agencies

- Investigator initiates approach
- Less-specified topics
- Assistance mechanism
- More flexibility
- Granting agencies
- Typically use external peer review
- Reviewers agree to keep application information confidential and certify that they don't have conflicts of interest



Program Background

- NASA's SBIR and STTR programs have awarded over \$3.3B to research-intensive American small businesses to date.
- Engineers and scientists from over 12,000 Firms in all 50 States, DC and Puerto Rico have participated
- On average each year 1,700 NASA scientists and engineers support the program performing technical reviews



Why Participate in SBIR/STTR?

1. Over \$2.25 Billion available every year
2. Funds are NOT A LOAN - no repayment - up to \$1.5M capital
3. Small businesses retain intellectual property rights
4. Provides seed money to fund high risk projects
5. Develop working relationship & credibility with government R&D
6. Fosters partnerships with large corporations and academia
7. Provides recognition and visibility for your business
8. Participation attracts venture capital and other funding sources

Structure of the Programs



Phase I: **Concept**

- Award Guideline: \$125K
- Duration: 6 months (SBIR)
12 months (STTR)



Phase II: **Full Research, R&D to Prototype**

- Award Guideline: \$750K
- Duration: 24 months
 - Phase II-E → 1:1 Matching up to \$375K
(2016 Solicitation onwards)



Phase III: **Commercialization/Infusion**

- Non-SBIR/STTR funds
 - Contract from NASA program, other agency,
prime contractor

2017 Solicitation



SBIR/STTR Program Solicitation

Nov. 17, 2016 - Jan. 20, 2017



Selections scheduled to be announced on April 10, 2017

2017 Solicitation - Noteworthy Changes



- **I-Corps**

In partnership with the National Science Foundation (NSF), NASA is offering the I-Corps program to educate selected teams on how to translate technologies from the laboratory into the market place.

<http://sbir.nasa.gov/content/I-Corps>

- **CCRPP**

Eligible SBIR/STTR Phase II awardees (from any Agency) can submit applications to NASA's FY17 Civilian Commercialization Readiness Pilot Program (CCRPP) related to NASA interests.

<http://sbir.gsfc.nasa.gov/content/post-phase-ii-initiatives>

2017 Solicitation - Noteworthy Changes



- **Focus Areas**

The research subtopics are now organized by “Focus Areas” that group NASA interests and related technologies.

This change is intended to make it easier for proposers to understand related needs across the agency and thus identify subtopics where their R&D capabilities may be a good match.

<http://sbir.gsfc.nasa.gov/solicit-detail/58007>

2017 Focus Areas

1. In-Space Propulsion Technologies	12. Entry, Descent and Landing Systems
2. Power and Energy Storage	13. Information Technologies for Science Data
3. Autonomous Systems for Space Exploration	14. In-Space and Advanced Manufacturing
4. Robotic Systems for Space Exploration	15. Lightweight Materials, Structures, Assembly, and Construction
5. Communications and Navigation	16. Ground and Launch Processing
6. Life Support and Habitation Systems	17. Thermal Management Systems
7. Human Research and Health Maintenance	18. Air Vehicle Technology
8. In-Situ Resource Utilization	19. Integrated Flight Systems
9. Sensors, Detectors and Instruments	20. Airspace Operations and Safety
10. Advanced Telescope Technologies	21. Small Spacecraft Technologies
11. Spacecraft and Platform Systems	22. ISS Utilization and Microgravity Research

2016 At-A-Glance

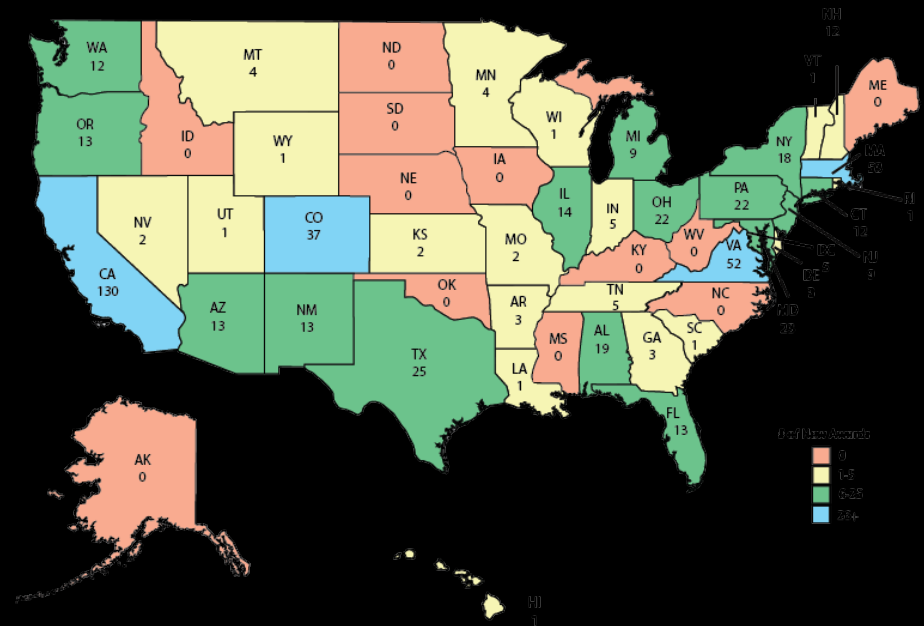


Fiscal Year 2015 SBIR/STTR Awards (Phase I, II, & II-E)

Annual Award Budget FY16:

SBIR & STTR: approx. \$200M

- SBIR is 3.0% of R&D in FY16. In FY17, NASA will increase the SBIR investment to 3.2%.
- STTR is .45% of extramural R&D budget in FY16



FY 16 Awards At-A-Glance:

- SBIR Awards: 341 Phase I and 137 Phase II
- STTR Awards: 58 Phase I, 21 Phase II

NASA SBIR/STTR Website www.sbir.nasa.gov



SBIR-STTR
America's Seed Fund™
POWERED BY NASA

Site ● Solicitations ○ Awards

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2017 SOLICITATION OPEN

TECHNOLOGIES

UPCOMING EVENT

SBIR IN THE NEWS

2016 ROAD TOURS

SBIR/STTR Program Solicitation
Nov. 17, 2016 - Jan. 20, 2017

NASA SBIR/STTR Program Solicitation
Solicitation Open

The NASA SBIR/STTR Program Solicitation for 2017 will be open from November 17, 2016 to January 20, 2017. Your firm can submit proposals in this time period. Plan ahead and submit early!

[Read more](#)

Proposers

- SBIR/STTR Basics
- SBIR/STTR Schedule
- Participation Guide
- SBIR/STTR Firms Library
- Model Contract
- Training Resources
- FAQs

Awardees

- SBIR/STTR Schedule
- SBIR/STTR Firms Library
- Additional Sources of Assistance
- Awardee Firm's EHB
- Training Resources
- FAQs

Demographics Data

- State-based Statistics
- Award Search
- FY 2012 Economic Impact Report

Access Annual Solicitations
(2017 Solicitation now open
through January 20th)

SBIR/STTR Helpdesk and
Program Points of
Contact

Information for NEW
participants available
under "Proposers"

The background of the entire image is a dramatic, artistic rendering of a Martian landscape. A bright sun is low on the horizon, creating a massive, radiant glow that fills the sky with orange and yellow clouds. Several Mars rovers are positioned on a flat, reddish-brown plain. To the right, a small, stylized human figure stands, providing a sense of scale. The foreground is a dark, rocky cliff face. The title "THE EVOLUTION OF A MARTIAN" is superimposed over the lower half of the image, with long, dark shadows cast by the text onto the cliff face below.

THE EVOLUTION OF A MARTIAN



How To Contact Us

- **Online:** www.sbir.nasa.gov
- **NASA Help Desk:** 301.937.0888
- **Email:** sbir@reisystems.com